

ABSTRACTS

Policy Research Working Paper Series

Numbers 3135–3170

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The World Bank
Research Support Team
Development Economics
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Policy Research Working Paper Series: Instructions for Submission

1. **Prepare a 250 word abstract.** The abstract should set out the main questions addressed in the paper and the key findings, putting them (if appropriate) in the context of the relevant literature. For empirical papers, briefly describe the data, including such details as the period covered, the countries or country groups included, the size of the sample, and the type of survey, as appropriate. *The abstract will be published as submitted.* To ensure maximum impact for your work, consult existing working paper abstracts and test your abstract by asking a colleague who is not familiar with the paper to read it before submission.

2. **Obtain clearance memoranda.** You will need two types of clearance memoranda.

- **Clearance from your manager.** A note from your manager requesting that the paper be included in the Policy Research Working Paper Series.

- **Non-Objection clearance for countries or regions discussed in the paper.** If the paper deals with specific countries, the author must obtain clearance on a non-objection basis from the relevant country director(s). For papers that deal with several countries within a single region or across regions, regional chief economists provide the clearance memoranda. The memoranda need not endorse the findings. It may simply state that the director (or regional chief economist) does not object to the paper appearing in the working paper series.

3. **Submit the abstract and paper, dataset (if any), and clearance memoranda to Benno Ndulu, Research Manager, Research Support Team (DECRS).** The submission can take the form of an email to Benno Ndulu. Attach the abstract and paper as a single Word document, and any associated dataset as a separate file (Excel or other widely used data format), along with the clearance memoranda. Then print the email as a cover note and submit it to DECRS along with a camera-ready original (a print out of your paper, exactly as you wish it to appear in print), one photocopy, and the electronic file(s).

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Questions regarding the Policy Research Working Paper Series can be directed to Evelyn Alfaro-Bloch (ext. 33984).

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Policy Research
Working Paper Series

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3135. Trade Reforms, Market Access, and Poverty in Argentina

Guido G. Porto
(September 2003)

Much of the literature that studies the relationship between trade and poverty in developing countries focuses on the effects of national trade reforms, such as own tariff reductions. In contrast, the World Trade Organization negotiations at the Doha Round were more concerned with the poverty effects on low-income countries, and of foreign reforms, such as the elimination of agricultural subsidies in industrial economies.

Porto empirically compares the relative poverty impacts of national and foreign trade reforms in Argentina. The author investigates national trade reforms, including tariff cuts on consumption goods and capital goods in Argentina. Foreign trade reforms include the elimination, in industrial countries, of agricultural subsidies and trade barriers on agricultural manufactures and industrial manufactures. These policies enhance the market access of Argentine exports. Overall, a combination of own reforms and enhanced market access would cause poverty to decline by between 1.7 and 4.6 percentage points. This evidence suggests that trade policies can be important poverty-reducing instruments in Argentina.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the poverty impacts of trade and trade policies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at gporto@worldbank.org. (27 pages)

3136. Legal Institutions and Financial Development

Thorsten Beck and Ross Levine
(September 2003)

A burgeoning literature finds that financial development exerts a first-order impact on long-run economic growth, which

raises critical questions, such as why do some countries have well-developed growth-enhancing financial systems while others do not? The law and finance theory focuses on the role of legal institutions in explaining international differences in financial development. First, the law and finance theory holds that in countries where legal systems enforce private property rights, support private contractual arrangements, and protect the legal rights of investors, savers are more willing to finance firms and financial markets flourish. Second, the different legal traditions that emerged in Europe over previous centuries and were spread internationally through conquest, colonization, and imitation help explain cross-country differences in investor protection, the contracting environment, and financial development today. But there are countervailing theories and evidence that challenge both parts of the law and finance theory. Many argue that there is more variation within than across legal origin families. Others question the central role of legal tradition and point to politics, religious orientation, or geography as the dominating factor driving financial development. Finally, some researchers question the central role of legal institutions and argue that other factors, such as a competitive products market, social capital, and informal rules are also important for financial development. Beck and Levine describe the law and finance theory, along with skeptical and competing views, and review empirical evidence on both parts of the law and finance view.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to understand the link between financial development and economic growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-439, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at tbeck@worldbank.org or rlevine@csom.umn.edu. (40 pages)

3137. Using Survey Data to Assess the Distributional Effects of Trade Policy

Guido G. Porto
(September 2003)

Porto develops and applies a methodology to empirically explore the effects of trade policies on the distribution of income and poverty in developing countries. He uses a methodology based on two links—one connecting trade policies to prices, and another connecting prices to household welfare. The author applies the methodology to the study of the distributional effects of Mercosur on Argentine families.

The main finding is that Mercosur benefits the average Argentine household across the entire income distribution. There is evidence of a pro-poor bias of the regional trade agreement: on average, poor households gain more from the reform than middle-income households, whereas the effects on rich families are positive but not statistically significant. Prior to the reform, Argentine trade policy protected the rich over the poor, and after the reform, granted some protection to the poor. As relative pre-Mercosur tariffs are higher on relatively skill-intensive goods, the tariff removals tend to benefit the poor over the rich. These findings indicate that trade reforms may actually help improve the distribution of income and reduce poverty in the country.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the impacts of trade and trade policies on poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at gporto@worldbank.org. (39 pages)

3138. Fiscal Federalism and Regional Growth: Evidence from the Russian Federation in the 1990s

Raj M. Desai, Lev M. Freinkman,
and Itzhak Goldberg
(September 2003)

Subnational fiscal autonomy—the basis for fiscal federalism in modern federations—is meant to serve two roles. First, local control over revenue collection is meant to provide a check on the capacity of central authorities to tax arbitrarily local capital. Second, retention of taxes raised locally is meant to establish incentives for subnational governmental authorities to foster endemic economic growth as a way of promoting local tax bases. But in the Russian Federation, fiscally autonomous regions have often resisted market-oriented reforms, the enactment of rules protecting private property, and the dismantling of price controls and barriers to trade. Desai, Freinkman, and Goldberg find statistical evidence in support of the hypothesis that fiscal incentives of the Russian regions represent an important determinant of regional economic performance. The authors also seek to understand the conditions under which fiscal autonomy prompts regional growth and recovery, and the conditions under which it has adverse economic effects. They argue that the presence of “unearned” income streams—particularly in the form of revenues from natural resource production or from budgetary transfers from the central government—has turned regions dependent on these income sources into “rentier” regions. As such, governments in these regions have used local control over revenues and expenditures to shelter certain firms (natural resource producers or loss-making enterprises) from market forces. Using new fiscal data from 80 Russian regions from 1996–99, the authors test this central hypothesis in both single- and simultaneous-equation specifications. Their results indicate that tax retention (as a proxy for fiscal autonomy) has a positive effect on the cumulative output recovery of regions since the breakup of the Soviet Union. But they also find that this effect decreases as rentable income streams to regions increase.

This paper—a product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia

Region—is part of a larger effort in the region to support fiscal reforms in transition. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Virginia Sapinosa, room H4-150, telephone 202-458-1105, fax 202-614-1139, email address vsapinosa@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at lfreinkman@worldbank.org or igoldberg@worldbank.org. (26 pages)

3139. Contracting Models of the Phillips Curve: Empirical Estimates for Middle-Income Countries

Pierre-Richard Agénor and Nihal Bayraktar
(September 2003)

This paper provides empirical estimates of contracting models of the Phillips curve for four middle-income developing economies—Chile, the Republic of Korea, the Philippines, and Turkey. Following an analytical review, models with both one lead and one lag, and two lags and three leads, are then estimated using Generalized Method of Moments (GMM) techniques. The results indicate that for both Chile and Turkey past and future inflation are of about the same magnitude in affecting current inflation. In Korea past inflation has a larger impact on inflation, whereas in the Philippines it is future inflation that plays a larger role. Homogeneity restrictions are satisfied for Korea and Turkey but not for Chile and the Philippines.

This paper—a product of the Poverty Reduction and Economic Management Division, World Bank Institute—is part of a larger effort in the institute to understand the dynamics of inflation in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Gosiengfiao, room J4-280, telephone 202-473-3363, fax 202-676-9810, email address mgosiengfiao@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at pagenor@worldbank.org or nbayraktar@worldbank.org. (24 pages)

3140. Raising the Quality of Secondary Education in East Asia

Kaoru Nabeshima
(September 2003)

Nabeshima seeks to broaden our understanding of the determinants of student achievement among East Asian economies using the TIMSS-R data set and, in the process, to remedy some of the ambiguities in the literature to date. These ambiguities are frequently due to the sparseness of detailed data on students, teachers, and schools. The TIMSS-R data set offers detailed information on these variables, which is not typically available from other sources, allowing the author to isolate the impact of various factors affecting student achievement, while controlling for specific characteristics of the students, teachers, and schools surveyed. The results indicate that the most consistent factors affecting student performance are characteristics associated with students (innate abilities and home resources). Moreover, the author does not find any consistent relationship between the performance of students and school resources or teacher autonomy, both of which are often advocated in the discussion of education reform.

This paper—a product of the Development Research Group—was originally prepared as a background paper for *Innovative East Asia: The Future of Growth*. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kaoru Nabeshima, room MC2-517, telephone 202-473-7880, fax 202-522-1150, email address knabeshima@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. (37 pages)

3141. Poverty in India during the 1990s: A Regional Perspective

Yoko Kijima and Peter Lanjouw
(October 2003)

Kijima and Lanjouw provide estimates of poverty at the regional level in India spanning the 1990s. Such estimates have not been previously available due to concerns regarding noncomparability of the 1993–94 and 1999–2000 National Sample Survey Organization (NSSO) household survey data. They implement an adjustment procedure to restore comparability based

on a methodology developed by Elbers and others (2003). The results indicate a less rapid decline of poverty at the all-India level than has been suggested by Deaton and Drèze (2002) based on a related adjustment methodology. The authors attempt to uncover the source of disagreement across these procedures by probing a number of their underlying assumptions.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to analyze poverty in India. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at ykijima@worldbank.org or planjouw@worldbank.org. (54 pages)

3142. Credit Reporting and Financing Constraints

Inessa Love and Nataliya Mylenko
(October 2003)

Love and Mylenko combine firm-level data from the World Bank Business Environment Survey (WBES) with data on private and public credit registries to investigate whether the presence of a credit registry in a country is associated with lower financing constraints, as perceived by managers, and with higher share of bank financing. They find that the existence of private credit registries is associated with lower financing constraints and higher share of bank financing, while the existence of public credit registries does not seem to have a significant effect on these perceived financing constraints. The authors also find that small- and medium-sized firms tend to have a higher share of bank financing in countries where private registries exist and stronger rule of law is associated with more effective private credit registries. Finally, the authors find some evidence that the presence of a public credit registry benefits younger firms relatively more than older firms.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study access to finance. Copies of the paper are avail-

able free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, mail stop MC3-300, telephone 202-473-8526, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at ilove@worldbank.org or nmylenko@worldbank.org. (33 pages)

3143. Who Benefits from Labor Market Regulations? Chile 1960–1998

Claudio E. Montenegro and Carmen Pagés
(October 2003)

Economists have examined the impact of labor market regulations on the level of employment. But there are many reasons to suspect that the impact of regulations differs across types of workers. In this paper Montenegro and Pagés take advantage of the unusually large variance in labor policy in Chile to examine how different labor market regulations affect the distribution of employment and the employment rates across age, gender, and skill levels. To this effect, they use a sample of repeated cross-section household surveys spanning the period 1960–98 and measures of the evolution of job security provisions and minimum wages across time. The results suggest large distribution effects. The authors find that employment security provisions and minimum wages reduce the share of youth and unskilled employment as well as their employment rates. They also find large effects on the distribution of employment between women and men.

This paper—a product of the World Development Report office, Development Economics Senior Vice Presidency—is part of a larger effort in the Bank to better understand the impact of labor market regulations. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Madhur Arora, room MC3-584, telephone 202-473-2955, fax 202-522-0056, email address marora@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at cmontenegro@worldbank.org or carmenpag@iadb.org. (35 pages)

3144. Market Disequilibria and Inflation in Uzbekistan, 1994–2000

Thilak Ranaweera
(October 2003)

Ranaweera develops and applies a macroeconomic framework to ascertain the influence of domestic disequilibria and external shocks on inflation dynamics in Uzbekistan. Using quarterly data for the period 1994:01 to 2000:03, he estimates several “long-run” relationships for the goods, money, and foreign exchange markets of Uzbekistan which are characterized by multiple exchange rates, import restrictions, and other domestic administrative controls. The empirical estimates, which use error correction mechanisms for different markets, show that domestic monetary and output developments, and changes in the official exchange rate compared with the parallel market rate have had a significant influence on the short-run behavior of the foreign exchange market in Uzbekistan. Furthermore, disequilibria in the product and money markets are the major forces driving short-run inflation dynamics in Uzbekistan. It should be noted that the study has been constrained by both the quantity and the quality of quarterly data available for the Uzbekistan economy.

This paper—a product of the Development Data Group, Development Economics Senior Vice Presidency—is part of an ongoing effort in the group to improve quantitative analytical tools for country assistance strategies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Premi Rathan Raj, room MC2-742, telephone 202-473-3705, fax 202-522-3645, email address prathanraj@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at tranaweera@worldbank.org. (25 pages)

3145. Alternative Paths to Structural Adjustment in Uzbekistan in a Three-Gap Framework

Thilak Ranaweera
(October 2003)

Ranaweera presents an internally consistent macroeconomic framework that could

be used as a first step toward a more comprehensive quantitative and qualitative assessment of the adjustment alternatives facing Uzbekistan. The three-gap framework focuses on the major imbalances of the economy for evaluating policy choices facing Uzbekistan. It emphasizes the domestic and external factors that determine economic outcomes and welfare. The author attempts to quantify two policy scenarios—gradual as against an accelerated policy implementation strategy. He finds that an aggressive adjustment policy would indeed improve most performance and welfare indicators. Two major ingredients of such an aggressive adjustment strategy are the unification of the exchange rate and implementation of current account convertibility in the balance of payments. The author also draws attention to the relative importance of external financing and the sustainability of the balance of payments under alternative structural adjustment paths facing Uzbekistan.

This paper—a product of the Development Data Group, Development Economics Senior Vice Presidency—is part of an ongoing effort in the group to improve quantitative analytical tools for country assistance strategies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Premi Rathan Raj, room MC2-742, telephone 202-473-3705, fax 202-522-3645, email address prathanraj@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at tranaweera@worldbank.org. (29 pages)

3146. The Price of Inconvertible Deposits: The Stock Market Boom during the Argentine Crisis

Eduardo Levy Yeyati, Sergio L. Schmukler, and Neeltje Van Horen
(October 2003)

The Argentine crisis witnessed, among other things, a deposit run, the suspension of deposit convertibility, and a "boom" in the stock market. The authors argue that this boom reflects the cost that depositors were willing to incur to get their money out of the banking system, in light of the impending risks. This boom was generalized to all stocks and more pronounced in liquid stocks. Furthermore, the boom was

a symptom that deposits were effectively restricted and that investors were not able to circumvent capital controls.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand financial crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at ely@utdt.edu, sschmukler@worldbank.org, or nvanhoren@worldbank.org. (11 pages)

3147. Human Capital and Earnings Inequality in Brazil, 1988–98: Quantile Regression Evidence

G. Reza Arabsheibani, Francisco Galvão Carneiro, and Andrew Henley
(October 2003)

Arabsheibani, Carneiro, and Henley undertake an empirical examination of rates of return to human capital for men in Brazil, through the period of macroeconomic stabilization and trade liberalization, using data from the 1988, 1992, and 1998 Brazilian household surveys (*Pesquisa Nacional por Amostra de Domicílios*, PNAD). The authors estimate simultaneous quantile equations to gain an insight on the impact of human capital on wages across the hourly earnings distribution. They conclude that there is evidence of growing inequality in rates of return to education in Brazil. But the authors find evidence that education is no longer used as a screening device in the labor market, but rather rewarded for its innate association with higher productivity. Although increases in rates of return to education have been more pronounced at the top of the earnings distribution, this has not led to increased inequality. This is because the levels of education and other labor market-rewarded endowments have increased and offset the rate of return effect.

This paper is a product of Poverty Reduction and Economic Management 4, Africa Technical Families. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Francisco Carneiro,

room J9-131, telephone 202-473-0360, email address fcarneiro@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. (20 pages)

3148. Gender Wage Differentials in Brazil: Trends over a Turbulent Era

G. Reza Arabsheibani, Francisco Galvão Carneiro, and Andrew Henley
(October 2003)

Since the late 1980s, macroeconomic and trade reform in Brazil appears to have been accompanied by a substantial improvement in the position of women compared with men in the labor market, despite only modest changes to labor market institutions. Arabsheibani, Carneiro, and Henley examine movements in the gender wage gap from 1988 to 1998. Their findings indicate that, over this period, the gender wage gap fell mainly because of reduced discrimination against women. But the authors find evidence to suggest that, more recently, since the elimination of high inflation, human capital investments and other earnings-related enhancements have begun to improve women's condition.

This paper is a product of Poverty Reduction and Economic Management 4, Africa Technical Families. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Francisco Carneiro, room J9-131, telephone 202-473-0360, email address fcarneiro@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. (24 pages)

3149. Rules of Thumb for Evaluating Preferential Trading Arrangements: Evidence from Computable General Equilibrium Assessments

Glenn W. Harrison, Thomas F. Rutherford, and David G. Tarr
(October 2003)

Most interesting results on the welfare effects of regional arrangements are ambiguous at a theoretical level. Many questions only have quantitative answers that are specific to the particular structural features of the economy and the policy considered. So, to determine the impact of

prospective regional arrangements governments often rely on a quantitative evaluation. Usually at the request of client governments of the World Bank, the authors have implemented many computable general equilibrium (CGE) models to inform policymakers.

The authors summarize the main conclusions drawn from these studies. The principal conclusions are:

- Countries excluded from a preferential trade arrangement almost always lose.
- Market access is a key determinant of the net benefits of a preferential trade arrangement.
- With a free trade agreement (FTA) the external tariff can be lowered such that a poor FTA becomes attractive.
- For Southern countries, North-South agreements offer a beneficial increase in competition in their home markets, and involve little increase in the supply price of Northern country sales in Southern countries.
- Multilateral trade liberalization results in significantly larger gains to the world than the network of regional arrangements.
- For individual countries without high protection, "additive regionalism" will likely result in substantially larger gains than unilateral trade liberalization.
- Tax replacement requirements reduce the set of desirable regional arrangements.
- Trade taxes are often an inefficient source of tax revenue.
- Trade liberalization should be expected to be pro-poor in developing countries, but results will be diverse at the household level so safety nets are important.
- Dynamic effects to reverse conclusions regarding regionalism are not expected.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the impact of regional trade integration on growth and poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. David Tarr may be contacted at dtarr@worldbank.org. (9 pages)

3150. Income-Related Biases in International Trade: What Do Trademark Registration Data Tell Us?

Carsten Fink, Beata Smarzynska Javorcik, and Mariana Spatareanu
(October 2003)

Economists have long recognized that richer countries trade more among themselves than with poorer economies due to a closer match of exporter supply structures and importer preferences. In the literature, the closeness of supply and demand has traditionally been determined by the quality of products—as expressed in the so-called Linder hypothesis. This paper examines an extension of the Linder hypothesis by also considering the extent of horizontal product differentiation as another determinant of the closeness of supply and demand. The empirical analysis employs information on international trademark registrations to test whether richer countries import more from countries whose exports are of higher quality and exhibit a greater degree of product differentiation. The results lend support to the hypothesis in most consumer goods sectors but not in intermediate goods sectors.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to examine the economic impact of protecting intellectual property rights in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at cfink@worldbank.org, bsmarzynska@worldbank.org, and m spatareanu@worldbank.org. (29 pages)

3151. A Multioutput Cost Function for Port Terminals: Some Guidelines for Regulation

Beatriz Tovar, Sergio Jara-Díaz, and Lourdes Trujillo
(October 2003)

Cargo handling in ports is a multioutput activity, as freight can arrive in many forms such as containers, bulk, rolling

stock, or noncontainerized general cargo. In this paper Tovar, Jara-Díaz, and Trujillo analyze the operation of port terminals through the estimation of a multioutput cost model that uses monthly data on three firms located at the Las Palmas port in Spain. This permits the calculation of product-specific marginal costs, economies of scale (general and by firm), and economies of scope, which are key tools to help the regulators in their task.

This paper—a product of the Infrastructure Vice Presidency—is part of a larger effort in the vice presidency to promote analytical work on the economic analysis of the sector. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Antonio Estache, room F11K-184, telephone 202-458-1442, fax 202-522-2965, email address aestache@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at btovar@empresariales.ulpgc.es, jaradiaz@cec.uchile.cl, or lourdes@empresariales.ulpgc.es. (27 pages)

3152. The Long-Run Economic Costs of AIDS: Theory and an Application to South Africa

Clive Bell, Shantayanan Devarajan, and Hans Gersbach
(October 2003)

Most existing estimates of the macroeconomic costs of AIDS, as measured by the reduction in the growth rate of gross domestic product, are modest. For Africa—the continent where the epidemic has hit the hardest—they range between 0.3 and 1.5 percent annually. The reason is that these estimates are based on an underlying assumption that the main effect of increased mortality is to relieve pressure on existing land and physical capital so that output per head is little affected. Bell, Devarajan, and Gersbach argue that this emphasis is misplaced and that, with a more plausible view of how the economy functions over the long run, the economic costs of AIDS are almost certain to be much higher. Not only does AIDS destroy existing human capital, but by killing mostly young adults, it also weakens the mechanism through which knowledge and abilities are transmitted from one genera-

tion to the next. The children of AIDS victims will be left without one or both parents to love, raise, and educate them.

The model yields the following results. In the absence of AIDS, the counterfactual benchmark, there is modest growth, with universal and complete education attained within three generations. But if nothing is done to combat the epidemic, a complete economic collapse will occur within three generations. With optimal spending on combating the disease, and if there is pooling, growth is maintained, albeit at a somewhat slower rate than in the benchmark case in the absence of AIDS. If pooling breaks down and is replaced by nuclear families, growth will be slower still. Indeed, if school attendance subsidies are not possible, growth will be distinctly sluggish. In all three cases, the additional fiscal burden of intervention will be large, which reinforces the gravity of the findings.

This paper—a product of the Office of the Vice President, Human Development Network—is part of a larger effort in the network to evaluate the economic consequences of HIV/AIDS. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Beata Lajch, room G8-017, telephone 202-473-1971, fax 202-522-3235, email address blajch@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at cbell@worldbank.org, sdevarajan@worldbank.org, or gersbach@uni-hd.de. (116 pages)

3153. Gender and Poverty: A Life Cycle Approach to the Analysis of the Differences in Gender Outcomes

Michael Lokshin and Thomas A. Mroz
(October 2003)

Lokshin and Mroz study complex interactions between gender and poverty in post-war Bosnia and Herzegovina. The goal of their analysis is to uncover how a spectrum of gender differentials at different parts of the life cycle varies across income groups. Using the data from the 2001 Bosnia and Herzegovina Living Standards Measurement Study, the authors find strong gender-poverty interaction in the patterns of labor force participation, gender gap in earnings, individuals' school

finances, and school attendance. The main source of gender inequality seems to come from differences in investments in girls' and boys' educations that increase with declines in income levels. Short-term income shocks could lead to long-term increases in gender inequality in households with school age children, unless there is ready access to credit markets. The authors also find that the magnitude of the impact of economic development on gender differences in Bosnia will depend on where the growth is concentrated. If the poor capture at least some benefits of economic growth, the gender differences in household investment in human capital of their children will decline. If, on the other hand, growth is concentrated among the richest, then important gender disparities could remain pervasive.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to understand interactions between gender and poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-362, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at mlokshin@worldbank.org or tom_mroz@unc.edu. (31 pages)

3154. The Twin Effects of Globalization

Francesco Daveri, Paolo Manasse,
and Danila Serra
(October 2003)

Employees of "globalized" firms face a riskier, but potentially more rewarding, menu of labor market outcomes. Daveri, Manasse, and Serra document this neglected tradeoff of globalization for a sample of Indian manufacturing firms. On the one hand, the employees of firms subject to foreign competition face a more uncertain stream of earnings and riskier employment prospects. On the other hand, they enjoy a more rapid career growth and have more opportunities to train and upgrade their skills. The negative uncertainty costs and the positive incentive effects of globalization are thus *twin* to each other. Concentrating on just one side of the coin gives a misleading picture of

globalization.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to examine the effects of trade and investment liberalization in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. Francesco Daveri may be contacted at francesco.daveri@unipr.it. (31 pages)

3155. Evaluating the Impact of Infrastructure Rehabilitation Projects on Household Welfare in Rural Georgia

Michael Lokshin and Ruslan Yemtsov
(October 2003)

Lokshin and Yemtsov evaluate the effect of various community level infrastructure rehabilitation projects undertaken in rural Georgia on household well-being. Their analysis is based on combining household and community level survey data. The authors' empirical approach uses the panel structure of the data to control for time-invariant unobservables at the community level by applying propensity-score-matched double difference comparison. The results indicate that improvements in school and road infrastructure produce nontrivial welfare gains for the poor at the village and country levels. The impact of water rehabilitation projects is ambiguous. School rehabilitation projects produce the largest gains for the poor. The methodological lesson from this analysis is that ad hoc community surveys matched with ongoing nationally representative surveys can provide a feasible and low cost impact evaluation tool.

This paper—a joint product of the Poverty Team, Development Research Group, and the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region—was conducted as a part of analytical work for *Georgia: Poverty Update*. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-632, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org.

@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at mlokshin@worldbank.org or ryemtsov@worldbank.org. (34 pages)

3156. Tariff Evasion and Customs Corruption: Does Pre-shipment Inspection Help?

José Anson, Olivier Cadot,
and Marcelo Olarreaga
(October 2003)

Anson, Cadot, and Olarreaga provide a new approach to the evaluation of pre-shipment inspection (PSI) programs as ways of improving tariff-revenue collection and reducing fraud when customs administrations are corrupt. They build a model highlighting the contribution of surveillance firms to the generation of information and describing how incentives for fraud and collusive behavior between importers and customs are affected by the introduction of PSI. The authors show theoretically that the introduction of PSI has an ambiguous effect on the level of customs fraud. Empirically, the econometric results suggest that PSI reduced fraud in the Philippines, it increased it in Argentina, and did not have significant impact in Indonesia.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to understand the determinants of customs corruption. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at jose.anson@hec.unil.ch, olivier.cadot@hec.unil.ch, or molarreaga@worldbank.org. (42 pages)

3157. On the Utility Consistency of Poverty Lines

Martin Ravallion and Michael Lokshin
(October 2003)

Although poverty lines are widely used as deflators for intergroup welfare compari-

sons, their internal consistency is rarely given close scrutiny. *A priori* considerations suggest that commonly used methods cannot be relied on to yield poverty lines that are consistent in terms of utility, or for capabilities more generally. The theory of revealed preference offers testable implications of utility consistency for “poverty baskets” under homogeneous preferences. A case study of Russia’s official poverty lines reveals numerous violations of revealed preference criteria—violations that are not solely attributable to heterogeneity in preferences associated with climatic differences.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to improve poverty measurement methodology. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-632, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at mravallion@worldbank.org or mlokshin@worldbank.org. (39 pages)

3158. Restoring Economic Growth in Argentina

William R. Cline
(October 2003)

Cline reviews the debate on the causes of Argentina’s economic collapse in late 2001 and 2002 and examines the measures needed to help restore sustainable growth. Some analysts stress fiscal imbalances, others overvaluation of the peso under the convertibility plan, and others external shocks. Cline judges that all three contributed substantially, but that it was their inflammatory interaction with domestic political unraveling that forced the bad-equilibrium outcome. He reviews the nascent recovery since the second half of 2002 and the important success of avoiding hyperinflation. Looking forward, the author’s analysis underscores the importance of strengthening fiscal performance, in part by increasing relatively low collections of value added taxes. He stresses the need for reform of the system of revenue sharing with the provinces; the importance of strengthening the banking system, which was severely weakened by

asymmetric conversion of assets and liabilities from dollars to pesos; and the need to arrive at equitable restructuring of utility tariffs to reestablish confidence of foreign direct investors in the rules of the game. Restructuring government debt is also central to restoring growth. A simple model indicates that a relatively ambitious target for the primary fiscal surplus and a restricted set of senior-status debt will be needed to limit the haircut on junior debt to amounts compatible with longer-term creditor perceptions of fairness. The author also considers the new dynamics of bargaining with the International Monetary Fund (IMF). He judges that although conditionality is arguably appropriately less stringent as only rollover is involved, and despite the large outstanding debt to the IMF, there are limits to how lenient the Fund can and should be in key areas with potential for setting international precedents.

This paper—a product of the Office of the Chief Economist, Latin America and the Caribbean Region—is part of a larger effort in the region to understand the causes of macroeconomic crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Yanina Budkin, room I4-405, telephone 202-473-2665, fax 202-522-3131, email address ybudkin@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at wcline@iie.com. (111 pages)

3159. Does Judicial Efficiency Lower the Cost of Credit?

Luc Laeven and Giovanni Majnoni
(October 2003)

Laeven and Majnoni investigate the effect of judicial efficiency on banks’ lending spreads for a large cross section of countries. They measure bank interest rate spreads for 106 countries at an aggregate level, and for 32 countries at the level of individual banks. The authors find that—after controlling for a number of other country characteristics—judicial efficiency, in addition to inflation, is the main driver of interest rate spreads across countries. This suggests that in addition to improving the overall macroeconomic climate in a country, judicial reforms, through a better enforcement of legal con-

tracts, are critical to lowering the cost of financial intermediation for households and firms.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to study the determinants of access to finance and the cost of credit. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, email address hv01@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at llaeven@worldbank.org or gmajnoni@worldbank.org. (34 pages)

3160. Monetary Policy and Sectoral Shocks: Did the Federal Reserve React Properly to the High-Tech Crisis?

Claudio Raddatz and Roberto Rigobon
(November 2003)

Raddatz and Rigobon present an identification strategy that allows them to study the sectoral effects of monetary policy and the role that monetary policy plays in the transmission of sectoral shocks. They apply their methodology to the case of the United States and find some significant differences in the sectoral responses to monetary policy. They also find that monetary policy is a significant source of sectoral transfers. In particular, a shock to equipment and software investment, which one identifies with the high-tech crisis, induces a response by the monetary authority that generates a temporary boom in residential investment and durables consumption but has almost no effect on the high-tech sector. Finally, the authors perform an exercise evaluating the model's predictions about the automatic and more aggressive monetary policy response to a shock similar to the one that hit the United States in early 2001. They find that the actual drop in interest rates is in line with the predictions of the model.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand the effects of monetary policy. Copies of the paper are available free from the World Bank, 1818 H

Street NW, Washington, DC 20433. Please contact Claudio Raddatz, room MC3-351, telephone 202-458-1245, fax 202-522-3518, email address craddatz@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. (35 pages)

3161. Liquidity Needs and Vulnerability to Financial Underdevelopment

Claudio Raddatz
(November 2003)

Raddatz provides evidence of a causal and economically important effect of financial development on volatility. In contrast to the existing literature, the identification strategy is based on the differences in sensitivities to financial conditions across industries. The results show that sectors with larger liquidity needs are more volatile and experience deeper crises in financially underdeveloped countries. At the macroeconomic level, the results suggest that changes in financial development can generate important differences in aggregate volatility. The author also finds that financially underdeveloped countries partially protect themselves from volatility by concentrating less output in sectors with large liquidity needs. Nevertheless, this insulation mechanism seems to be insufficient to reverse the effects of financial underdevelopment on within-sector volatility. Finally, Raddatz provides new evidence that:

- Financial development affects volatility mainly through the intensive margin (output per firm).
- Both the quality of information generated by firms, and the development of financial intermediaries have independent effects on sectoral volatility.
- The development of financial intermediaries is more important than the development of equity markets for the reduction of volatility.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand the determinants of macroeconomic volatility. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Claudio Raddatz, room MC3-351, telephone 202-458-1245, fax 202-522-3518, email address craddatz@worldbank.org. Policy Research Work-

ing Papers are also posted on the Web at <http://econ.worldbank.org>. (52 pages)

3162. The Political Economy of Public Spending on Education, Inequality, and Growth

Mark Gradstein
(November 2003)

Public provision of education has often been perceived as universal and egalitarian, but in reality it is not. Political pressure typically results in incidence bias in favor of the rich. Gradstein argues that the bias in political influence resulting from extreme income inequalities is particularly likely to generate an incidence bias, which we call social exclusion. This may then lead to a feedback mechanism whereby inequality in the incidence of public spending on education breeds higher income inequality, thus generating multiple equilibria: with social exclusion and high inequality; and with social inclusion and relatively low inequality. The author also shows that the latter equilibrium leads to higher long-run growth than the former. An extension of the basic model reveals that spillover effects among members of social groups differentiated by race or ethnicity may reinforce the support for social exclusion.

This paper—a product of Public Services, Development Research Group—is part of a larger effort in the group to understand the causes and the consequences of incidence biases in public spending. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, mail stop MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at grade@bgumail.bgu.ac.il. (14 pages)

3163. Achieving the Millennium Development Goals: The Role of Infrastructure

Danny Leipziger, Marianne Fay, Quentin Wodon, and Tito Yepes
(November 2003)

Leipziger, Fay, Wodon, and Yepes provide an empirical analysis of the determinants

of three child-health outcomes related to the Millennium Development Goals: the infant mortality rate, the child mortality rate, and the prevalence of malnutrition. Using data from Demographic and Health Surveys, they go beyond traditional cross-country regressions by exploiting the variability in outcomes and explanatory variables observed within countries between asset quintiles. The authors show the relationships existing between the prevalence of diseases (diarrhea and malnutrition) and mortality. Their findings suggest that apart from traditional variables (income, assets, education, and direct health interventions), better access to basic infrastructure services has an important role in improving child health outcomes. Their analysis of interaction effects between interventions also suggests the importance of combining interventions to meet the Millennium Development Goals.

This paper—a product of the Finance, Private Sector, and Infrastructure Unit, Latin America and the Caribbean Region—is part of a larger effort in the region to promote the Millennium Development Goals. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Marianne Fay, room I5-007, telephone 202-458-7200, fax 202-676-9594, email address mfay@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The other authors may be contacted at dleipziger@worldbank.org, qwodon@worldbank.org, or tyepes@worldbank.org. (25 pages)

3164. Democracy, Public Expenditures, and the Poor

Philip Keefer and Stuti Khemani
(November 2003)

Countries vary systematically with respect to the incentives of politicians to provide broad public goods and to reduce poverty. Even in developing countries that are democracies, politicians often have incentives to divert resources to political rents and to private transfers that benefit a few citizens at the expense of many. These distortions can be traced to imperfections in political markets that are greater in some countries than in others. Keefer and Khemani review the theory and evidence on the impact of incomplete information of voters, the lack of credibil-

ity of political promises, and social polarization on political incentives. They argue that the effects of these imperfections are large but that their implications are insufficiently integrated into the design of policy reforms aimed at improving the provision of public goods and reducing poverty.

This paper—a joint product of the Investment Climate and Public Services Teams, Development Research Group—was originally prepared as a background study for *World Development Report 2004: Making Services Work for Poor People*. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC3-607, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at pkeefe@worldbank.org or skhemani@worldbank.org. (34 pages)

3165. Social Protection in a Crisis: Argentina's *Plan Jefes y Jefas*

Emanuela Galasso and Martin Ravallion
(November 2003)

Galasso and Ravallion assess the impact of Argentina's main social policy response to the severe economic crisis of 2002. The program aimed to provide direct income support for families with dependents for whom the head had become unemployed due to the crisis. Counterfactual comparisons are based on a matched subset of applicants not yet receiving the program. Panel data spanning the crisis are also used. The authors find that the program reduced aggregate unemployment, though it attracted as many people into the workforce from inactivity as it did people who would have been otherwise unemployed. While there was substantial leakage to formally ineligible families, and incomplete coverage of those eligible, the program did partially compensate many losers from the crisis and reduced extreme poverty.

This paper is a product of the Poverty Team, Development Research Group. The work reported is part of the ex-post evaluation of the World Bank's Social Protection IV Project in Argentina. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC

20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1151, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at egalasso@worldbank.org or mravallion@worldbank.org. (45 pages)

3166. On Measuring Aggregate "Social Efficiency"

Martin Ravallion
(November 2003)

Cross-country comparisons of social indicators controlling for income and/or social spending have been widely used to measure and explain "social efficiency" analogously to "technical efficiency" in production. Ravallion argues that these methods are clouded in ambiguities about what exactly is being measured. Standard methods of measuring technical efficiency require assumptions that seem unlikely to hold for social indicators. In the context of a simple parametric model of life expectancy, conditions are identified under which there will be a systematic pattern of bias in estimates of efficient health spending.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to assess the reliability of empirical methods used to inform policy debates. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, mail stop MC3-306, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at mravallion@worldbank.org. (29 pages)

3167. Combining Insurance, Contingent Debt, and Self-Retention in an Optimal Corporate Risk Financing Strategy

Eugene Gurenko and Olivier Mahul
(November 2003)

Gurenko and Mahul provide a conceptual framework for designing a comprehensive risk financing strategy for a firm using an

optimal combination of three instruments: self-retention, contingent debt, and insurance. Using an original conceptual model, the risk management decisions of the firm are first decomposed into two sets—choosing attachment points for each layer of financing used in the overall risk financing structure, and then determining optimal risk allocation arrangements within each layer of risk. This model allows the authors to show how these optimal risk financing arrangements are driven by the costs of risk management instruments, the risk characteristics, and the firm's borrowing constraints. Finally, the authors provide an original perspective to think about optimal *ex ante* risk management strategies based on a combination of insurance, savings, and credit at the microeconomic or macroeconomic levels.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to develop modern risk management tools at the microeconomic and macroeconomic levels. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Eugene Gurenko, room MC9-707, telephone 202-458-5414, fax 202-614-0920, email address egurenko@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. Olivier Mahul may be contacted at omahul@worldbank.org. (26 pages)

3168. Banking in Developing Countries in the 1990s

James A. Hanson
(November 2003)

During the 1990s commercial bank deposits and capital rose relative to GDP in the major developing countries. This rise largely reflected the dramatic fall in inflation of the 1990s and financial liberalization. But much of this growth in banks' loanable funds was absorbed by increased net holdings of central bank debt and of government debt. Much of the rise in government debt reflected post-crisis restructurings, notably in Brazil, Indonesia, and Mexico, but rising deficits also played a role. Bank intermediation between depositors and private sector borrowers remained limited in many countries despite financial liberalization.

The post-crisis restructurings raise two important issues: the poor performance of loans that was revealed by the crises and the future crowding-out of the cost of the crisis over time and the inability to retire the restructuring-related debt. The absorption of deposits in nonprivate sector credit, the growth of offshore finance of the private sector, and the poor performance of loans suggest a weakening of the link between the traditional measure of financial depth, M2/GDP, and economic growth and development. The changes in the 1990s also raise issues such as the potential for future deposit growth, the riskiness of bank portfolios, banks' increased dependence on government solvency, the access to credit for firms unable to access global markets, the foreign exchange exposure of countries, and the implications of the ongoing changes in regulation and supervision.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to strengthen banking systems. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact James Hanson, room MC9-903, telephone 202-473-9496, fax 202-522-2031, email address jhanson@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. (39 pages)

3169. Is Inequality in Africa Really Different?

Branko Milanovic
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High inequality in Africa is something of a paradox: Africa should be a low-inequality continent according to the Kuznets hypothesis (because African countries are poor and agriculture-based), and also because land (the main asset) is widely shared. Milanovic's hypothesis is that African inequality is politically determined. Yet in the empirical analysis, despite the introduction of several political variables, there is still an inequality-increasing "Africa effect" linked to ethnic fractionalization. The politics, however, may work through ethnic fractionalization, which provides an easy and secure basis for the formation of political groups. Although this is a plausible explanation,

it is not fully satisfactory, and the author criticizes it in the concluding section.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to study inequality in the world. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at bmilanovic@worldbank.org. (43 pages)

3170. Direct Support to Private Firms: Evidence on Effectiveness

Geeta Batra and Syed Mahmood
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Governments use a variety of instruments to provide direct support to private enterprises. These include the provision of finance (subsidized and/or directed credit) and business development services (management and marketing advice to small businesses, agricultural extension services, support for enterprise level training and support to technology development). These interventions are distinct from those that support enterprises indirectly by establishing a policy and legal environment conducive to enterprise development. How effective have these direct support schemes been? This paper attempts to provide some answers to this question by surveying the available literature on the effectiveness of direct support interventions. Where available, impact evaluations suggest that the performance has been mixed at best. The evidence indicates that active intervention does not work unless the basic environment for private sector development is sound. Public policy thus needs to focus on creating an enabling environment, key elements of which include a sound legal and judicial system which supports low-cost contract enforcement, good infrastructure, a policy playing field which is level in terms of ease of registration, taxes and investment incentives for all enterprises—large and small, domestic and foreign.

This paper—a product of the Private Sector Development Division, Investment Climate Department—is part of a larger effort in the department to evaluate the

effectiveness of direct support interventions. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Nessa Busjeet, room I9-105, telephone 202-473-3997, fax 202-522-3262, email address nbusjeet@ifc.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at gbatra@worldbank.org or smahmood@worldbank.org. (24 pages)

